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THE NEW ENGLAND BOTANICAL CLUB

Vol. 21. June, 1919. No. 246.

JASIONE MONTANA A CONSPICUOUS WEED NEAR LAKEWOOD, NEW JERSEY.

Bayard Long.

Among certain plants received for identification at the Philadelphia Academy during the winter of 1917 was a specimen of *Jasione montana*, said to have been collected the previous summer near Lakewood, New Jersey, by Miss Florence Beckwith of the Rochester Academy of Science.

This striking species is well known about Newport, Rhode Island, especially on Conanicut Island, but elsewhere, apparently (although recognized as occurring from Massachusetts to New York) it has been noted as a very unusual plant.[1] The Lakewood specimen was received through Mr. O. H. Brown of Cape May City. Through his interest and the kindly response of Miss Beckwith it was learned that the plant had been found in a sandy field, sparsely covered with grass and weeds, along the River Road (leading toward Toms River) about two miles out from Lakewood. It was said to be not infrequent in this field but observed nowhere else. With the assurance that the

[1] In fact, although there is an historical occurrence of it at Philadelphia, it has apparently never even been recorded from here. It was doubtless among the rarest of ballast ground waifs, as the only extant material, to the best of my knowledge, is a single specimen at the University of Pennsylvania from "Girard Point (on ballast) Phila.," collected by Isaac Burk, probably about the 60's. The occurrence in New York is in all probability similarly historical rather than actual. Mr. Norman Taylor, in his *Flora of the Vicinity of New York*, notes it "Rare as a waif. . . near the City of New York," but Mr. Percy Wilson has recently written me from the New York Botanical Garden, on my inquiry, "We have only one specimen labelled *Jasione montana* in the local collection. This was collected in ballast grounds at Hunter's Point, New York, in 1879." In the authoritative *Catalogue of the Flowering Plants and Ferns of Connecticut* it is reported as rare in that state, two stations being noted, but is definitely placed in a carefully compiled list of *Fugitive Species*. Probably as little may be said for its occurrence in Massachusetts.

specimen was not a single casual picked out of a clover-field or some similar habitat, the occurrence was considered likely to prove of sufficient interest to warrant a trip to Lakewood — with the hope of being able to rediscover the plant and learn its actual status at this new locality.

On arriving at Lakewood, June 22, 1917, the River Road, or River Avenue, was easily located and a course toward Toms River pursued. It was seen that originally, doubtless, this road ran through pine and oak barrens chiefly, but being one of the main highways through Lakewood to the shore it has become an improved road and much of the natural woods adjacent has given way to cleared land about scattered houses. When little more than a half-mile out of Lakewood my glance fell upon a little group of spindly-stemmed plants (and rosettes) growing along the roadside in the partial shade of a close row of Norway Spruces. They were at once recognized as the desired *Jasione montana,* and although there was a natural disappointment in finding the plants still only in small bud, the discovery itself furnished sufficient satisfaction to make the trip already successful. The best developed plants of the colony were collected for specimens and some rosettes carefully dug for growing. In an endeavor to get out of the heat and glare of a day like midsummer, while putting the specimens in press and wrapping up the rosettes, I crawled in under the spruces. Glancing through the low-hanging branches into the open beyond, I was attracted by the semblance of a blue haze lying low over the ground. To a Philadelphian, "Bluebottles" at once instinctively came to mind. Fields and meadows blued with *Muscari botryoides* are familiar sights in but few places outside the Philadelphia area, however, and the simile may convey little to the generality of botanists. But those to whom this sight has been granted will have a definite point of comparison — and the only one which was suggested to me as I gazed across this acre or more of *Jasione montana.*

Closer inspection showed a field of the most sandy, sterile character, evidently once cultivated but now lying fallow. Here and there among more common weeds were *Potentilla argentea* and *P. recta,* but the dominant plant, occurring in thousands upon thousands, was the *Jasione.* A more dry, torrid, and apparently sterile habitat could scarcely be imagined, but here these plants were flourishing in the greatest luxuriance. They were mostly in their first bloom, a few of the most robust getting into fruit.

The species is a quite curious and unique one in our flora and at first glance suggests little of its alliance to our Harebell and other Bellflowers of the genus *Campanula*. With its tiny flowers in close, hemispheric heads subtended by an involucre it more nearly simulates a Composite. The handsome pale blue of the corolla is strikingly offset in the fresh flower by a pink, exserted, club-shaped body which proves to be the stigma. No less curious are the rounded, burlike fruiting heads, prickly with the pointed, persistent calyx-lobes topping the capsules.

Having in mind that the original station was said to be about two miles out from Lakewood it seemed worth while to continue further along the River Road. Within a short distance another spot was seen where the plant was frequent, then a third, a fourth, till at least a dozen distinct stations were noted between Lakewood and Seven Stars School, three miles south — some of thousands of plants, some few, of course. It was found most frequent within a mile or a mile and a half of Lakewood — a common and conspicuous plant — apparently disappearing as Seven Stars was approached.

The most characteristic habitats were open, sandy areas — old fallow fields, neglected gardens, dooryards, roadsides — in general, cleared areas associated with settlement and cultivation. One station of a particularly interesting type was observed within a mile of Lakewood. Some years ago this spot was evidently cleared and a wide road run through in the process of "land improvement." Now there is only a narrow wagon track winding through the sand and the cleared area is growing up with Pines and Oaks and the regular pine-barren types of the adjacent native flora. In some places the woodland has already come back; in others are only thickets; nearest the River Road is still open sand, characterized by *Euphorbia Ipecacuanhae, Eupatorium album, Carex pennsylvanica.* In this association, in the most sterile, sun-scorched sand, as well as among the thickets of young Pitch Pine and Sassafras, and in the shade of the woods, *Jasione montana* is very frequent and has all the appearance of a native plant — so thoroughly has it adapted itself here. The much greater robustness of the plants in the open sun is clearly indicative of its preferred habitat but its occurrence in the woods shows it to be tolerant of varying conditions.

In the course of my ramblings about one of the larger colonies a farmer was encountered. Upon inquiry whether the plant in his

field had recently come in and if he had ever seen it elsewhere, he assured me that the "Blue-weed" has been frequent about Lakewood for twenty-five years and is said to be elsewhere in Monmouth County. Such information may be taken for what it is worth, but the frequence and thorough establishment of the plant along the River Road south of Lakewood is at least suggestive of the possible verity of this fuller statement.

Academy of Natural Sciences of Philadelphia.

TSUGA AMERICANA (MILL.) FARWELL, A FINAL WORD.

Oliver A. Farwell.

In Rhodora for October, 1918, pages 185–8, Mr. Tidestrom argues for the retention of the name *Tsuga Canadensis* (L.) Carr. for the Hemlock Spruce on the grounds that Linnaeus, in 1739, assisted in writing up the description of the plant for Gronovius's *Flora Virginica*, 1743, and hence was familiar with the species and therefore the element Linnaeus knew should be considered as the type; also that the word *submembranaceis* of the description excludes the White Spruce from consideration. He fails to prove, however, that the White Spruce was not equally known to Linnaeus; he only supposes that it was not. He says:— "That Linnaeus meant that his *P. Canadensis* should stand for a Spruce as we understand this genus is out of the question." Since Linnaeus included the "Spruce" as an element of his *Pinus Canadensis* it is rather astonishing, to say the least, to learn, "That Linnaeus meant it, is out of the question." Philip Miller, a contemporary of Linnaeus and a botanist of no mean ability, ranking perhaps in his day as second only to the distinguished Swede, and one who probably knew as much as any about the then current concept of species, certainly understood *Pinus Canadensis* Linn. to be the White Spruce. Note the description of each:—

Pinus Canadensis, Linn.	Abies Canadensis, Miller.
Pinus foliis solitariis linearibus obtusiusculis submembranaceis.	Abies (Canadensis) foliis linearibus obtusiusculis submembranaceis.

With the exception of the word *solitariis* these descriptions are identical and it is *self-evident* that Miller *adopted the specific name and*

technical description from Linnaeus; also that if the word *submembranaceis* excludes the White Spruce in one instance it must in the other also. *Abies Canadensis* Miller as to name and technical description, but not as to plant, is a *pure synonym of Pinus Canadensis* Linn., *thus leaving Miller's plant nameless;* yet Mr. Tidestrom accepts *Picea Canadensis* (Mill.) Britt. If *Pinus Canadensis* Linn. (*Abies Canadensis* Mill. as to name bringing synonym) is legitimately construed as the Hemlock Spruce, then the *nameless plant* of Miller, the White Spruce, must be given a different appellation than the one by which it is now known since two species can not be given the same specific name when based upon the same earlier binomial. One or the other must drop the specific name *Canadensis:* if it is to be the Hemlock, then its name should be the one heading this article; if the White Spruce, the name for it should be PICEA GLAUCA (Moench.) Beissn. (*Pinus glauca* Moench, Verz. 73, 1785.)

For my part and with all due respect to Mr. Tidestrom, I fail to see that he has thrown any new light upon the subject; he has not shown the *determining incident occurring after 1753* that induced Linnaeus to create a new binomial or species, *if it were not,* as previously maintained by me, the *publication of Miller's plate and description.* If Linnaeus did not know the White Spruce, the plate of Miller illustrating it was second only to an actual specimen in hand and therefore he became through studying the figures as familiar with the Spruce as he could have been with the Hemlock from an examination of the Clayton fragmentary twig, some twenty odd years previously; he was at the time (when Miller's *figures* were brought to his attention) probably engrossed with the production of the 2nd Ed. of the Species Plantarum; his study of the Hemlock was brought to mind; he saw a greater resemblance in it to the Spruce than to the Balsam Fir; it was, therefore, taken out of *Pinus Balsamea* and placed under his new species, *P. Canadensis,* where it "should not be considered as necessarily belonging to the species, but that it was possible that such was the case;" having brought these two species together, that he used the old description of his own rather than that of a rival author was perfectly natural, and quite understandable. Since, however, the plate of Miller is the determining factor in the creation of *Pinus Canadensis,* it should be considered as the type.

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PANICUM § CAPILLARIA IN NEW ENGLAND.

M. L. Fernald.

Ever since the publication of Hitchcock & Chase's *North American Species of Panicum*[1] the writer has attempted in vain to reconcile the New England plants of the section *Capillaria* with the published treatment. Finally, finding that by Hitchcock & Chase's treatment all the eastern *P. barbipulvinatum* Nash had been thrust into *P. capillare* L., that much of the northwestern *P. capillare* had been forced into *P. barbipulvinatum*, and that the common indigenous species of river- and lake-shores of most of New England had been merged with the strikingly dissimilar *P. philadelphicum* Bernh., it seemed desirable to study these plants from a new standpoint.

In this study it has been found that the common New England plant which has been confused with *P. philadelphicum* is distinguished at once from *P. capillare* (including *P. barbipulvinatum*) and *P. philadelphicum* by having strictly glabrous pulvini (at the bases of the panicle-branches), in this character agreeing with the southern *P. Gattingeri* Nash; while *P. capillare* and *P. philadelphicum* have the pulvini obviously hispid.

The characters relied upon by Hitchcock & Chase to separate *P. barbipulvinatum* from *P. capillare* are

> "Spikelets 2 to 2.2, rarely 2.5 mm. long; blades not crowded toward the base. 23. *P. capillare.*
> Spikelets 3 to 3.3, rarely only 2.5 mm. long; blades usually crowded toward the base. . . . . 24. *P. barbipulvinatum.*"

It will be noticed that the spikelet-length is not constant, and this becomes conspicuously the case when the series of specimens in the Gray Herbarium and the herbarium of the New England Botanical Club, examined by Hitchcock & Chase, is studied anew, for of the 9 sheets labeled by them "*P. capillare*," 5 are exact matches for western sheets which they marked "*P. barbipulvinatum.*" Conversely, many of the western specimens marked by them "*P. barbipulvinatum*" are inseparable from eastern plants called "*P. capillare.*" Nor does the crowding of foliage at the base hold any better.

[1] Contrib. U. S. Nat. Herb. xv. (1910).

On the whole, typical *P. capillare* is distinguished by its usually purplish panicle, with the crowded branches included at base and strongly ascending until complete maturity when the branches become divaricately spreading; in *P. barbipulvinatum* the commonly less purple panicle is soon exserted and its branches quickly divaricate. In *P. capillare* the spikelets are usually plumper, those of *P. barbipulvinatum* being more lance-attenuate, but this, like the habit and the length of the spikelet, is not constant. The most definite character seems to be in the length of the pedicels. In typical *P. capillare* the spikelets are mostly on long pedicels; in *P. barbipulvinatum* only the terminal spikelet of each branchlet is obviously pedicelled, the lateral spikelets being very short-pedicelled or even subsessile. This character, however, like the others, is not constant, and *P. barbipulvinatum* seems to the writer, as it has to Rydberg, much better treated as a variety of *P. capillare* than as a distinct species. As a variety the plant should be called *P. capillare*, var. *occidentale* Rydberg, Contrib. U. S. Nat. Herb. iii. 186 (1895), Rydberg's type-number (1788) from Grant Co., Nebraska, being a close match for the type-number (*Rydberg & Bessey*, no. 3544) of *P. barbipulvinatum*.

As understood by the writer the New England species of *Panicum* § *Capillaria* may be distinguished as follows:

Pulvini hispid.
Spikelets all or nearly all long-pedicelled, 2–3 mm. long: panicle tardily exserted, its lower branches mostly included during anthesis. *P. capillare.*
Spikelets subsessile or only short-pedicelled along the ultimate branchlets: panicle exserted in anthesis.
Primary panicle (except in obviously starved individuals) 1.5–3 dm. long: spikelets 2.5–3.3 mm. long, attenuate at tip *P. capillare*, var. *occidentale.*
Primary panicle 0.4–1.8 dm. long: spikelets 1.7–2 mm. long, merely acute or short-acuminate ..... *P. philadelphicum.*
Pulvini glabrous or merely ciliate at tip ..... *P. Tuckermani.*

P. CAPILLARE L. Sp. Pl. i. 58 (1753); Hitchcock & Chase, Contrib. U. S. Nat. Herb. xv. 60 (1910), in large part. *P. capillare*, var. *agreste* Gattinger, Tenn. Fl. 94 (1887).— *P. capillare*, var. *vulgaris* Scribn. Grasses Tenn. pt. 2, 44 (1894).— Dry open soil, sandy fields, roadsides and waste places, common in southern New England, extending locally north to Windsor Co., Vermont, and Cumberland and Hancock Cos., Maine.

Var. OCCIDENTALE Rydberg, Contrib. U. S. Nat. Herb. iii. 186 (1895). *P. capillare brevifolium* Vasey in Rydberg & Shear, U. S. Dept. Agric. Bull. no. 5, 21 (1897). *P. barbipulvinatum* Nash in

Rydberg, Mem. N. Y. Bot. Gard. i. 21 (1900); Hitchcock & Chase, l. c. 62 (1910), in large part.— Prince Edward Island and Quebec to British Columbia, southward to southern New England, Michigan, Missouri, etc.; a common plant of waste lands, roadsides, and railroad banks in northern New England and eastern Canada. Probably naturalized from the West.

P. PHILADELPHICUM Bernh. in Trin. Gram. Pan. 216 (1826), published as a variety of *P. capillare* but with a binomial, validated by Nees, Agrost. Bras. 198 (1829); Hitchcock & Chase, l. c. 58 in part (1910). *P. capillare β. sylvaticum* Torr. Fl. No. and Mid. U. S. 149 (1824). *P. porphyrium* Trin. ex Nees, l. c. as synonym (1829). *P. torreyi* Fourn. in Hemsl. Biol. Centr. Am. Bot. iii. 497 (1885) and Fourn. Mex. Pl. ii. 28 (1886) as to synonym only. *P. capillare*, var. *minimum* Engelm. in Gattinger, l. c. (1887), perhaps also *P. capillare*, var. *minimum* Engelm. in Vasey Cat. Grasses U. S. 9 (1885). *P. minimum* (Engelm.) Scribn. & Merr. U. S. Dept. Agric. Div. Agrost. Circ. no. 27, 4 (1900).— A southern species, known in New England only locally in CONNECTICUT: dry open woods, Franklin, September 12 and 26, 1911, *R. W. Woodward.*

P. **Tuckermani**, n. sp., annuum; culmis plerumque decumbentibus numerosis furcatisque rare adscendentibus vel erectis paucis vel solitariis simplicibusque 0.3–7 dm. longis papilloso-hispidis foliosis; vaginibus papilloso-hispidis, laminis 0.2–2.5 dm. longis 0.1–1 cm. latis longe acuminatis laxe adscendentibus plus minusve hispidis; paniculis plerumque numerosis primariis exsertis late ovoideis 0.2–2 dm. longis, ramibus laxe divergentibus vel deinde subreflexis, ramulis spicato-racemosis spiculis 2–7 breviter pedicellatis vel subsessilibus, pulvinis coriaceis glabris; spiculis ovoideis breviter acuminatis 1.5–2 mm. longis 0.6–0.7 mm. latis, gluma inferiore deltoideo-suborbicularibus breviter acuminatis 0.6–0.9 mm. longis, superiore lemmatibusque sterilibus aequantibus 5-nerviis fructibus paullo superantibus.

Annual; culms usually decumbent and very numerous and forking, sometimes ascending or erect and few or solitary and simple, 0.3–7 dm. long, papillose-hispid, leafy throughout: sheaths papillose-hispid; blades 0.2–2.5 dm. long, 0.1–1 cm. broad, long-acuminate, loosely ascending, more or less hispid on both surfaces: panicles usually numerous, the primary one exserted, broadly ovoid, 0.2–2 dm. long, its branches loosely divergent or finally almost reflexed; the branchlets spicate-racemose, with 2–7 short-pedicelled or subsessile spikelets; pulvini coriaceous, glabrous: spikelets ovoid, short-acuminate, 1.5–2 mm. long, 0.6–0.7 mm. broad; 1st glume deltoid-suborbicular, short-acuminate, 0.6–0.9 mm. long; 2d glume and sterile lemma equal, 5-nerved, barely exceeding the fruit.— Sandy and gravelly shores or open soils, Quebec and northern Maine to Connecticut and Wisconsin. QUEBEC: damp magnesian gravel and mud about the asbestos quar-

ries, Black Lake, August 26, 1915, *Fernald & Jackson*, no. 11,998. Maine: gravelly shore of St. John River, Fort Kent, September 21, 1899, *Fernald;* wet sandy shore of Aroostook River, Masardis, September 8, 1898, *Fernald;* river-beach, Mattawamkeag River, Mattawamkeag, September 14, 1898, *Fernald*, no. 2,802; alluvial woods by the Penobscot, Pea Cove, Oldtown, July 27, 1916, *Fernald & Long*, no. 12,472; sandy shore of the Penobscot, Upper Stillwater, September 18, 1899, *Fernald;* sandy soil, Orono, July 30, 1889, *Fernald;* gravelly shore, Orono, September 1, 1893, *Fernald;* exsiccated clay, Orono, August 18, 1908, *Fernald* in Pl. Exsicc. Gray. no. 113; low thickets by the Penobscot River, Veazie, August 25, 1908, *Fernald;* Woodstock, 1887, *J. C. Parlin;* beach of Lambert Lake, September 1, 1908, *Fernald;* gravelly railroad bank, Pembroke, August 18, 1909, *Fernald*, no. 1,272; flats of Small Mill Pond east of Great Pond, Somesville, August 24, 1889, *E. L. Rand;* dry woods, South Deer Isle, August 18, 1914, *A. F. Hill*, no. 1,865; sandy and gravelly beach of Nequasset Lake, Woolwich, September 15, 1916, *Fernald & Long*, no. 12,476; sandy bank of the Androscoggin, Topsham, August 22, 1911, *C. H. Bissell;* Androscoggin Lake, North Leeds, 1894, *Kate Furbish;* South Poland, 1893, 1894, *Kate Furbish;* Harding's, Brunswick, 1899, *Kate Furbish;* The Park, Brunswick, June 26, 1913, *Kate Furbish;* wet clay of wood-path, Baldwin, August 28, 1916, *Fernald & Long*, no. 12,474; wet sandy bank of Saco River, Limington, August 28, 1916, *Fernald & Long*, no. 12,473; sandy beach, Ward Pond, Limington, August 29, 1916, *Fernald, Long & Norton*, no. 12,475; in Fletcher's Woods, Biddeford, September 20, 1901, *G. G. Kennedy*. New Hampshire: weed in garden, Shelburne, September 4, 1915, *W. Deane;* muddy bank of Clear Stream, Errol, September 5, 1917, *Fernald & Pease*, no. 16,968; near Ravine House, Randolph, September 20, 1904, *A. S. Pease*, no. 4,127; damp roadside, Jefferson Highlands, Jefferson, September 7, 1916, *A. S. Pease*, no. 16,873; dry roadside, Alstead, August 2, 1900, *Fernald*, no. 361. Vermont: head of Lake Memphremagog, September, 1859, *Edw. Tuckerman* (type in Gray Herb.). Massachusetts: muddy island, Foster's Pond, Andover, September 11, 1913, *A. S. Pease*, no. 2,605; edge of Johnson's Pond, Groveland, September 16, 1901, *A. S. Pease*, no. 2,056; near Spot Pond, Stoneham, October 9, 1852, *Wm. Boott;* sandy shore of Winter Pond, Winchester, September 22, 1908, *Fernald*, October 14, 1906, *Pease*, no. 9,837½; shore of Great Pond, Weymouth, September 9, 1908, *G. G. Kennedy;* ditch, Becket, September 22, 1904, *R. Hoffmann*. Rhode Island: open gravelly soil, Lincoln, September 16, 1906, *Fernald;* damp sandy or peaty shore of Beach Pond, Exeter, September 3, 1914, *Collins & Fernald*, no. 11,243; sandy and peaty shore, southern end of Long Pond, South Kingstown, September 5, 1914, *Collins & Fernald*, no. 11,244. Connecticut: sand flats, bed of Connecticut River, Hartford, September 25, 1909, *C. H.*

Bissell: wet, sandy pond-margin, Sharon, September 7, 1909, *C. A. Weatherby*, no. 2,713. New York: open alluvial and marshy flats between the city and Cayuga Lake west of the Inlet, Ithaca, August 13, 1913, *A. L. Palmer*, no. 79. Wisconsin: St. Croix, "native," 1861, *T. J. Hale*.

Confused by Hitchcock & Chase with the more southern *P. philadelphicum* from which it differs in habit, more leafy culm, short-exserted panicles, glabrous pulvini, and spicate-racemose branchlets of the inflorescence. Much nearer *P. Gattingeri* Nash, which, however, has shorter and broader leaves, ellipsoid panicle, and more scattered, longer-pediceled larger spikelets.

The type-sheet of *P. Tuckermani* was indicated by Tuckerman as a new species which he was afterward dissuaded from publishing. Tuckerman's herbarium name, *P. soboliferum*, has twice been published in synonymy, first by Scribner & Merrill as a synonym of *P. minimum* in Rhodora, iii. 106 (1901), later by Hitchcock & Chase as a synonym of *P. philadelphicum* in Contrib. U. S. Nat. Herb. xv. 58 (1910). In view of the fact that Tuckerman himself never published his herbarium-name and that it has twice been published by others in synonymy, it seems wisest to let it lapse and to use for the plant which Tuckerman at one time thought to be distinct a name which is open to no question and which at the same time associates the discoverer of the species definitely with the plant.

Gray Herbarium.

SOME CONNECTICUT PLANTS.

R. W. Woodward.

Elodea. At Old Lyme, last summer, the writer was surprised to see an *Elodea* growing abundantly in the brackish waters of a tidal stream, as he had known *Elodea* only in fresh waters. It was a plant with linear, acute leaves, quite different in appearance from the plant with firmer, more crowded, oblong, or ovate-oblong, obtuse leaves, which comprises much of the aggregate which has hitherto passed as *E. canadensis*, and is now segregated as *Philotria canadensis* (Michx.) Britton. Fortunately, a number of staminate flowers were found

floating on the water. These have oblong anthers, which are 0.8–1.0 mm. long. In the pistillate flower the three stigmas are linear, 2-cleft, and exceeding the perianth, which is, at least in dried specimens, purplish or purple-flecked. The fruit of *Elodea* is ordinarily described as oblong, but in this plant the fruit is globose, although the persistent base of the style may give an oblong appearance to partly grown fruit. We have in Connecticut Elodeas with oblong fruit, and others with globose fruit, a fact which indicates that specific characters may yet be found in the fruit. In general, this Old Lyme plant agrees well with Rydberg's description of *Philotria angustifolia* (Muhl.) Britton,[1] and is apparently this species, or close to it, although in the literature at command, the writer has been unable to find a printed record of *Elodea* in marine waters, and our local collectors state that they have not met with the genus in such waters. It was growing at, or below, the edge of low water. The herbarium sheets, showing both kinds of flowers, and mature fruit, are more satisfactory than sheets of *Elodea* usually are.

Lophotocarpus spongiosus, reported in the Connecticut Catalogue by Dr. C. B. Graves as rare at Old Lyme, was noticed the past summer, in the same town, at one station, where it was quite abundant, and many plants were seen with scapes reaching the unusual height of 20 cm., although the majority were tiny affairs, 4 or 5 cm. high.

Panicum virgatum cubense. The writer has in his herbarium a sheet of this variety collected at Norwich, August 11, 1900, on a gravel bank along the Shetucket river a few miles above its entrance into the Thames. The spikelets are 2.8–3 mm. long and match perfectly material verified by Mrs. Agnes Chase, but the panicles are less strict than is usual in this form of *P. virgatum*. The same variety has been collected by Dr. C. B. Graves at Groton, a town on the east bank of the Thames at its mouth, and the writer has found it at Westerly, Rhode Island, a few miles east of Groton, where it is abundant at several stations in brackish sand.[2] This appears to be another instance, of which there are several, of southern or coastal species following up the Thames, a tidal stream, and its tributaries. Thus, *Paspalum psammophilum* is known from several stations along the Shetucket, *P. circulare* occurs on the Yantic, another tributary of

[1] Rydberg, Bull. Torr. Bot. Club, xxxv. 460 (1908).
[2] Rhodora, xvi. 136 (1914).

the Thames, and *Hierochloeodorata* is occasional on many meadows near the Shetucket, and is so abundant at Occum on a marsh crossed by the trolley line that it gives, in May, a distinct yellowish tinge to the marsh. In the Norwich plants the 1st glume of the spikelets is not so acute as in the Westerly plants and the spikelets approach more nearly to the type as figured by Hitchcock and Chase.[1]

ELYMUS RIPARIUS is certainly not rare in southern Connecticut. It is occasional in Franklin, on river bottoms, and is abundant on gravel flats of the Shetucket in Sprague, where perhaps one half of the plants show a distinct reddish tinge, which is quite noticeable in the field. It also occurs in dry situations, as for instance, well up on slopes of the West Rock trap ridge, New Haven, where it is found not as stray individuals but in colonies. In all specimens seen by me, at least the lower sheaths are ciliate and often somewhat pubescent.

CAREX GLAUCODEA, occasional in Franklin, often along woodland roads, and always very glaucous, occurs at one station in Franklin where the plants are green or at most, show only a suggestion of the white bloom which is a characteristic of the species.

ERIOCAULON PARKERI, reported by Dr. E. H. Eames from the vicinity of New Haven, occurs also at Old Lyme. The writer saw several hundred plants at one station, all growing in soft tidal mud and below the high water line.

ACTAEA RUBRA NEGLECTA, Franklin, five or six plants in rich open woods.

AQUILEGIA CANADENSIS FLAVIFLORA. Franklin, on a shaded ledge. The plant was noticed at this station for several seasons about ten years ago. The place has not been visited in recent years. Known hitherto in Connecticut only from a printed record.[2]

EPILOBIUM MOLLE occurs sparingly at Franklin in sphagnous meadows, associated with *E. densum*. It has not been reported in Connecticut from east of the Connecticut River.

Specimens of the above, with a single exception, have been deposited in the Gray Herbarium.

NEW HAVEN, CONNECTICUT.

[1] North American Panicium, Hitchcock & Chase, Contrib. U. S. Nat. Herb. xv. 92 (1910).
[2] RHODORA, xx. 182 (1918).

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